

**AMENDED CLAIMS**

**[Received by the International Bureau on 22 April 2003 (22.04.03):  
original claims 1 to 11 replaced by amended claims 1 to 13]**

1. Method for industrial producing of bubbly alcohol-containing beverages where a base mix is prepared and subsequently subjected to controlled alcohol fermentation in an air-tight system, stabilization and filtration, characterized by the fact that the alcohol fermentation, stabilization and filtration are carried out in one and the same air-tight space and the resultant bubbly beverage remains in that space till the moment of its consumption, when the filtration and stabilization are carried out simultaneously.

2. Method for industrial producing of bubbly alcohol-containing beverages where a preliminarily prepared non-stabilized, non-bubbly and unfiltered alcohol-containing beverage is subsequently subjected to carbonation in an air-tight system, stabilization and filtration, characterized by the fact that the carbonation, stabilization and filtration are carried out in one and the same air-tight space and the resultant bubbly beverage remains in that space till the moment of its consumption, when the filtration and stabilization are carried out simultaneously.

3. Method for industrial producing of bubbly alcohol-containing beverages according to claims 1 and 2, characterized by the fact that prior to consumption, the beverage is conditioned, in accordance with the consumer's taste, by addition of pre-dozed filling solution.

4. Method for industrial producing of bubbly alcohol-containing beverages according to claims 1 and 2, characterized by the fact that prior to consumption, the beverage is conditioned, in accordance with the consumer's taste, by addition of pre-dozed fruit concentrate.

5. Method for industrial producing of bubbly alcohol-containing beverages where a pre-stabilized, clarified and filtered base mix is prepared, containing the necessary quantities of fermentable sugar and pure yeast culture, which is subsequently

subjected to controlled alcohol fermentation in an air-tight system, characterized by the fact that the pure yeast culture in the base mix is immobilized, the resultant bubbly beverage remains in the air-tight space where it had fermented until the moment of its consumption.

6. Method for industrial producing of bubbly alcohol-containing beverages where a preliminarily prepared, non-bubbly, stabilized, and filtered alcohol-containing beverage is subsequently subjected to carbonation in an air-tight system, characterized by the fact that the resultant bubbly beverage remains in the air-tight space where it had been carbonated until the moment of its consumption.

7. A device for industrial production of bubbly alcohol-containing beverages, realizing the method under claims 1 and 2, consisting of a container, whose inner surface is suitable for contact with foodstuffs, and whose upper part has an opening, in which a plug head has been screwed tight, continuing in piping whose axis coincides with the container's, the lower end of the piping being very close to the bottom end of the container and being fitted with a filtering element, characterized by the fact that the container (1) is a standard metal cylindrical keg with spherical upper (14) and lower (15) ends, the plug head (3) is a standard multifunctional head, and the filtering element (5) is fitted inside the piping (4), sealed to its lower end by a sealing ring (6).

8. Device according to claim 7, characterized by the fact that the filtering element (5) is made of porous material with pore size less than 100  $\mu\text{m}$  and is formed as a hollow cylinder whose outer surface is provided with a multitude of distancing drop-like protrusions (21), spaced along the its surface, the upper end (22) of the said filter (5) is closed, the lower end (23) of the said filter (5) is open to the volume of the container (1), along the lower periphery on the outside of the said filter element (5) a ring (24) is formed, whose outer diameter is larger than the outer diameter of the piping (4), and on the upper surface of the said ring (24) a bed is formed receiving the said sealing ring (6).

9. Device according to the claims 7 and 8, characterized by the fact that the inlet (25) of the multifunctional plug head (3) of the keg (16) is connected to monitoring and controlling devices (7), and the outlet (26) of the said head (3) is closed.

10. Device according to the claims 7 and 8, characterized by the fact that the inlet (25) of the said multifunctional plug head (3) of the said keg (16) is connected via a reduction valve (9) to a gas container (8) containing pressurized carbon dioxide, the outlet (26) of the said head (3) is closed, and the keg (16) is turned with its lower end (15) up.

11. Device according to the claims 7 and 8, characterized by the fact that the inlet (25) of the multifunctional plug head (3) of the keg (16) is connected equipressurally to the outlet of a fermentation tank (11), containing non-stabilized bubbly alcohol-containing beverage.

12. Device according to the claims 7 and 8, characterized by the fact that said protruding cylindrical band (2) consists of upper part (2') and lower part (2'') fixed, respectively, above and below the joining planes of the end parts (14 and 15) to the cylindrical surface of the container (1), so that the outer edges (17 and 18) of the bands (2', 2'') extend beyond the length of the said container (1), and the upper cylindrical band 2' is provided with opposite openings 31.

13. Device for industrial producing of bubbly alcohol-containing beverages, realizing the method according to claims 5 and 6 consisting of a container, whose inner surface is suitable for contact with foodstuffs, and whose upper part has an opening, in which a plug head has been screwed tight, continuing in piping whose axis coincides with the container's, the lower end of the piping being very close to the bottom end of the container, characterized by the fact that the container (1) is a standard metal cylindrical keg with spherical upper (14) and lower (15) ends, and the plug head is a standard multifunctional head (3).

## STATEMENT UNDER ARTICLE 19 (1)

1. Device under DE 44 22 190 (D1) is not relevant to originally filed claims 1-5 and 11 because:

- The filed application pertains to **method and device for industrial production** of bubbly alcohol-containing beverages, whereas D1 is a **device for closing of bottles and multiple-usage containers**, containing home-drawn beverages. Therefore, D1 is not relevant to claims 1-4. The visual likeness between the devices and their use for bubbly beverages made us re-formulate the originally filed claim 5. D1 does not treat any technology. The applied device realizes fermentation, stabilization and filtration and is a storage and transportation container.

- In the originally filed claims 1-4 and the new 5 and 6, fermentation is carried out in an airtight system and is controllable. In D1 there's no mention of a sealing element between the closing device and the bottleneck (cannot store bubbly beverages), nor provision of safety and regulating devices (bottle is not explosion-safe).

- D1 is neither technically realizable nor applicable in the production of bubbly beverages (it cannot be used with fermentation in airtight containers) and is relevant neither to the method (originally filed claims 1-4) nor to the device (originally filed claims 5 and 11). In the originally filed claims 1-4 and the new 5 and 6 constant pressure is ensured in the container during production, transportation, storage, and drawing-out. In D1 the drawn-out beverage has lowered quality, because the built-up pressure decreases (not compensated), so the chemical composition of the beverage is altered, the ratio between the bound, dissolved and free carbon dioxide changes, the beverage gets negative organoleptic qualities and becomes de-champagnized, desaturated and de-esterified. In D1 the lowering pressure in the container and the dispensation with the disgorging worsen the quality of the product – the biomass remains inside the beverage and causes negative metabolic processes of the yeast cells.

- In D1 filtration doesn't proceed normally – the rate of drawing-out constantly decreases – the product in the bottle isn't totally drawn-out. Positioning of the filter between the end of the piping and the bottom of the bottle also causes losses. In the applied device, to ensure the total drawing-out, the filter is inside the piping, whose lower end almost touches the bottom.

2. DE 197 03 076 presents a **device for home-production of beer**, cited with reference to claims 1, 3, 4. The purpose of this device and the processes therein are radically different from our application, so it isn't relevant to claim 1 for the method. It has no relation to claims 3 and 4, as beer is not conditioned with liqueurs or syrups.

3. US 5 311 811 is cited in connection with claims 1, 3, 4 and refers to a **device for brewing beer under pressure and home conditions**, so it isn't relevant to claim 1, much less to claims 3 and 4, as beer is not conditioned with liqueurs or syrups.

4. FR 2 747 116 is cause for withdrawal of originally filed claim 8.